

REMARKS

In the Office Action, the Examiner rejected claims 1-37 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0234869 to Tejnil; rejected claims 1-37 under obviousness-type double patenting as being unpatentable over claims 1-10 and 13-23 of U.S. Patent No. 6,440,616 to Izuha et al; rejected claims 1-37 under obviousness-type double patenting as being unpatentable over claims 1-10 and 13-23 of Izuha et al. in view of U.S. Patent No. 6,576,374 to Kim; and rejected claims 1-37 under 35 U.S.C. § 103(a) as being unpatentable over Izuha et al. in view of Kim.

Applicants have amended claim 33 to improve readability and have cancelled claims 20-28. Claims 1-19 and 29-47 are pending in the above-captioned patent application, of which claims 1-19 and 29-37 are presented for examination.

Applicants respectfully traverse the Examiner's rejection of claims 1-37 under 35 U.S.C. § 102(e) as being anticipated by Tejnil; the rejection of claims 1-37 under obviousness-type double patenting as being unpatentable over claims 1-10 and 13-23 of Izuha et al; the rejection of claims 1-37 under obviousness-type double patenting as being unpatentable over claims 1-10 and 13-23 of Izuha et al. in view of Kim; and the rejection of claims 1-37 under 35 U.S.C. § 103(a) as being unpatentable over Izuha et al. in view of Kim. Applicants note that each of these rejections is moot with respect to cancelled claims 20-28. Moreover, Tejnil fails teach each and every element of claim 1, for example. Further, claims 1-10 and 13-23 of Izuha et al., whether taken alone or with Kim, fail to teach or suggest the subject matter of claim 1. In addition, other portions of Izuha et al. taken with Kim also fail to teach or suggest the subject matter of claim 1. In particular, the applied references at least fail to teach or suggest the claimed

"transparent film being configured to give a predetermined phase difference to exposure light" (emphasis added), as recited in claim 1.

At page 4 of the Office Action, the Examiner concedes that Tejn timer teaches "etching primary features into a surface of a phase shift mask, the primary features being etched to a depth operative to cause incident light to be phase shifted about 180.degree [sic]" (emphasis added). Thus, as acknowledged by the Examiner, Tejn timer does not teach a transparent film that provides a phase difference. Rather, phase differences are achieved in Tejn timer by, for example, etching mask alt-PSM 200 to form regions 205. See Fig. 2 and paragraph [0014]. Accordingly, Tejn timer fails to teach the claimed "transparent film being configured to give a predetermined phase difference to exposure light" (emphasis added), as recited in claim 1.

Turning to the Examiner's double patenting rejections, none of claims 1-10 and 13-23 of Izuha et al. recites the claimed "transparent film" in claim 1 of this application, nor does the Office Action set forth any evidence that Applicants' claimed "transparent film" would somehow be obvious. Instead, Applicants note that the Office Action indicates that "the claimed mask [presumably in reference to the present application and not claims 1-10 and 13-23 of Izuha et al.] employs an additional depth for phase shifting, which is known in the art." Office Action at page 5. Thus, the Examiner apparently contends that teachings of an etched depth of a substrate to obtain a phase difference renders Applicants' claimed 1 obvious. Applicants respectfully note, as in the discussion of Tejn timer above, that claim 1 requires a "transparent film [which is] configured to give a predetermined phase difference to exposure light" (emphasis added), and is thus distinguishable over such alleged claimed teachings of an etched substrate.

Kim teaches, for example, etching substrate 40 to form groove 51 (col. 7, lines 30-32) so that “[t]he phase shift characteristics ... are determined by the thickness (T) of the resultant *substrate 40 in which groove 51 is formed.*” Col. 7, lines 33-35 and Fig. 15. Thus, Kim teaches providing phase difference by etching a groove into a substrate and, like claims 1-10 and 13-23 of Izuha et al., also does not teach the claimed “transparent film.”

With respect to the Examiner’s rejection under 35 U.S.C. § 103, Applicants submit that the specification and drawings of Izuha et al., like Izuha et al. claims 1-10- and 13-23 discussed above, are silent as to the claimed “transparent film,” as recited in claim 1 of this application. Rather, as shown in Figs. 8A and 13A, Izuha et al. teaches etching a substrate to provide a phase difference. See also col. 12, lines 30-36 and col. 15, line 66 - col. 16, line 7. As noted above, Kim is also silent as to the claimed “*transparent film* [which is] configured to give a predetermined phase difference to exposure light” (emphasis added), as recited in claim 1.

Accordingly, in view of the above-noted shortcomings of Tejnil, Izuha et al., and Kim, claim 1 is allowable over the applied references, and claims 2-7 are allowable at least due to their dependence from claim 1.

Independent claims 8, 14, and 29, while of different scope, recite limitations similar to those recited in claim 1. For example, claim 8 recites “at least a part of the halftone phase shift *film* ... [being] configured to give a predetermined phase difference to exposure light” (emphasis added) and claim 14 recites “forming a transparent *film* ... giving a predetermined phase difference to exposure light” (emphasis added). In addition, claim 29 recites a “halftone phase shift *film*” and “giving a first phase difference

to exposure light passing through ... the etched part of the halftone phase shift *film*" (emphasis added). Thus, claims 8, 14, and 29 are each allowable over Tejnli, Izuha et al., and Kim at least for reasons discussed above in regard to claim 1. Moreover, claims 9-13, 15-20, and 30-37 are allowable at least due to their dependence from claims 8, 14, and 29, respectively.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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